What the invention claimed is:

1. A photocatalytic lamp comprising a lamp body and a photocatalyst covering surrounding said lamp body, wherein said photocatalyst covering comprising a breathing base material and a photocatalyst in said breathing base material, said breathing base material having at least one protruding flow guide portion each defining with the periphery of said lamp body a respective buffer zone adapted to buffer the flowing of air.

2. The photocatalytic lamp as claimed in claim 1, wherein said breathing base material is a thin sheet material selected from a group of materials including non-woven fabric, polymers, metal netting, filter paper, ceramics, and sponge.

3. The photocatalytic lamp as claimed in claim 1, wherein said photocatalyst is selected from an oxide compound group including TiO_2, ZnO, SnO_2, $SrTiO_3$, WO_3, Bi_2O_3, and Fe_2O_3.

4. The photocatalytic lamp as claimed in claim 1, wherein said photocatalyst is mixed in said breathing base material.

5. The photocatalytic lamp as claimed in claim 1, wherein said photocatalyst is fastened to said breathing base material by coating.

6. The photocatalytic lamp as claimed in claim 1, wherein said lamp body is a lamp tube.

7. The photocatalytic lamp as claimed in claim 1, wherein said lamp body is a lamp bulb.

8. The photocatalytic lamp as claimed in claim 8, wherein said lamp body is a light emitting diode.

9. The photocatalytic lamp as claimed in claim 1, wherein said lamp body emits ultraviolet light.

10. The photocatalytic lamp as claimed in claim 9, wherein the wavelength of the light emitted by said lamp body is within 200~800nm.

11. The photocatalytic lamp as clamed in claim 1, wherein said breathing base material has a plurality of protruding flow guide portions extended around the periphery of said lamp body.

12. The photocatalytic lamp as claimed in claim 1, wherein said breathing base material has a plurality of protruding flow guide portions extend in axial direction relatively to said lamp body and arranged in parallel.